

# DC to AC Inverters

Conformity to RoHS Directive

## Connector type, Dimming, 5W, for 2 Bulbs

### CXA Series CXA-0271

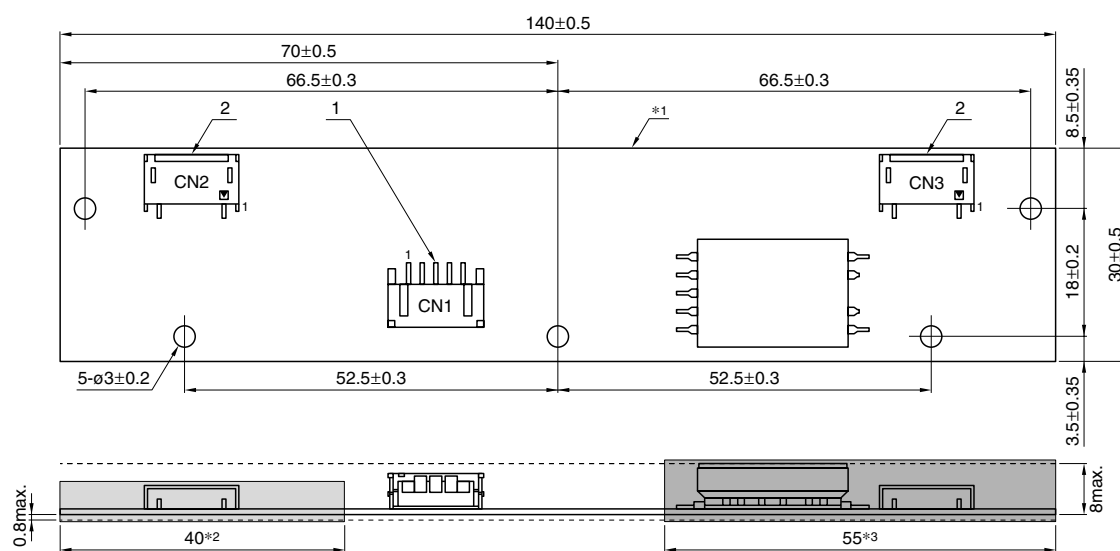
#### FEATURES

- For 2 bulbs.
- Applicable panel size\* : 8 to 12-inch
- With brightness control function (Pulse Wide Modulation mode).
- With lamp failure detector.
- The high-voltage terminals and patterns are coated with silicone so as to avoid the defects caused by dust.
- It is a product conforming to RoHS directive.
- \* The applicable panel size is for typical reference dimensions.

#### TEMPERATURE AND HUMIDITY RANGES

|                        |                 |  |
|------------------------|-----------------|--|
| Temperature range (°C) | Operating range | 0 to +60   |
|                        | Storage         | -30 to +85   |
| Humidity range(%)RH    |                 | 95max.<br>[Maximum wet-bulb temperature 38°C. No dew.] |

#### SHAPES AND DIMENSIONS



\*1 Substrate(PWB: Printed wiring board): Flame retardant material UL94V-0(CEM-3) t=1mm

\*2 : High-voltage generator (The entire surface within a range of 40mm away from the end of the base in the output)

\*3 : High-voltage generator (The entire surface within a range of 55mm away from the end of the base in the output)

Weight: 21.0g typ.

Dimensions in mm

|                    | Connector manufacturer's company and type            | Symbol   |
|--------------------|--|----------|
| 1 Input connector  | Japan Solderless Terminal Co., Ltd. S5B-PH-SM4       | CN1      |
| 2 Output connector | Japan Solderless Terminal Co., Ltd. SM02(8.0)B-BHS-1 | CN2, CN3 |

#### TERMINAL NUMBERS AND FUNCTIONS

##### CN1

| Terminal No. | Function  | Symbol            |
|--------------|---|-------------------|
| CN1-1        | Input voltage Edc: 10.8 to 13.2V/12V[nom.]                              | V <sub>in</sub>   |
| CN1-2        | 0V  | GND               |
| CN1-3        | Brightness dimmer voltage *<br>Edc: 0 to 2.5V(Maximum brightness on 0V) | V <sub>br</sub>   |
| CN1-4        | Lamp failure detector<br>0V: Normal condition/5V: Abnormal condition    | V <sub>st</sub>   |
| CN1-5        | Remote voltage Edc 0 to 0.4V: off/2.5 to 13.2V:on                       | V <sub>rm</sub> t |

\* Brightness can be controlled by adjusting V<sub>br</sub> within a range of 0 to 2.5V.

##### CN2

| Terminal No. | Function                                | Symbol                      |
|--------------|---|-----------------------------|
| CN2-1        | Output 1[High voltage] I <sub>rms</sub> | 2 to 6mA V <sub>HIGH1</sub> |
| CN2-2        | —                                       | — N.C.                      |
| CN2-3        | Output 1[Low voltage]                   | (5V) V <sub>LOW1</sub>      |

##### CN3

| Terminal No. | Function                                | Symbol                      |
|--------------|---|-----------------------------|
| CN3-1        | Output 2[High voltage] I <sub>rms</sub> | 2 to 6mA V <sub>HIGH2</sub> |
| CN3-2        | —                                       | — N.C.                      |
| CN3-3        | Output 2[Low voltage]                   | (5V) V <sub>LOW2</sub>      |

- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

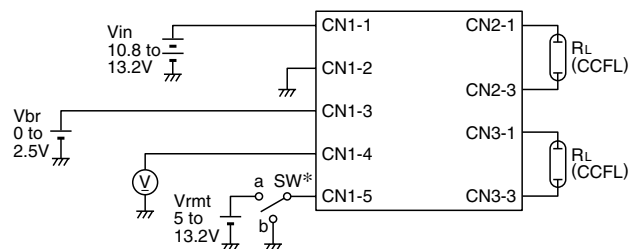
## CXA-0271

## ELECTRICAL CHARACTERISTICS

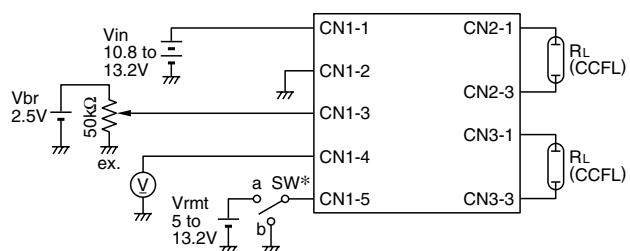
| Item                                  | Unit | Symbol     | Specification |      |      | Condition          |                    | $T_a(^{\circ}\text{C})$ | $R_L(\text{k}\Omega)$ | Brightness |
|---------------------------------------|------|------------|---------------|------|------|--------------------|--------------------|-------------------------|-----------------------|------------|
|                                       |      |            | min.          | typ. | max. | $V_{in}(\text{V})$ | $V_{br}(\text{V})$ |                         |                       |            |
| Output current $I_{rms}$              | mA   | $I_{out}$  | 5.7           | 6    | 6.7  | $12 \pm 0.1$       | 0                  | $23 \pm 5$              | $74 \pm 0.5$          | Maximum    |
|                                       |      |            | 5             | 6    | 7    | $12 \pm 1.2$       | 0                  | 0 to +60                | $74 \pm 0.5$          | Maximum    |
| Input current $I_{dc}$                | A    | $I_{in}$   | —             | 0.55 | 0.7  | $12 \pm 1.2$       | 0                  | $23 \pm 5$              | $74 \pm 0.5$          | Minimum    |
| Oscillation frequency                 | kHz  | FL         | 38            | 43   | 48   | $12 \pm 1.2$       | 0                  | $23 \pm 5$              | $74 \pm 0.5$          |            |
| Open circuit output voltage $E_{rms}$ | kV   | $V_{open}$ | 1.25          | 1.5  | —    | $12 \pm 1.2$       | 0                  | $23 \pm 5$              | $\infty$              |            |

## TYPICAL CONNECTIONS

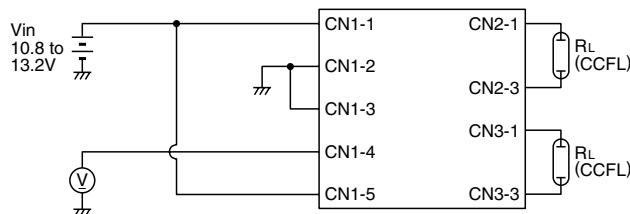
## EXAMPLE OF VOLTAGE DIMMER CONTROL



## EXAMPLE OF POTENTIOMETER DIMMER CONTROL



## NO DIMMER CONTROL (BRIGHTNESS MAX.)



\* SW a:on, b:off

## BRIGHTNESS DIMMER VOLTAGE- OUTPUT CURRENT CHARACTERISTICS

